

Overview of SYBAC Events – 2/9/16

Meet and Greet at the Capitol, Room 304

Students were briefed by elected officials on past and current state initiatives relating to technology. Those measures include the 'Connect Every Acre' initiative, a cyber security bill, and a measure to prevent identity theft. Legislators participating included:

Representative Zach Nunn (R – Polk County)
Representative Gary Carlson (R – Muscatine)
Representative Rob Bacon (R – Ames)
Representative Patti Ruff (D – McGregor)
Senator Ken Rozenboom (R – Oskaloosa)
Auditor of State Mary Mosiman

Monthly Meeting Discussion:

SYBAC Students Present:

Caleb Beerbower, Southeast Polk HS (in-person)
Kaylee Daniels, Oskaloosa HS (in-person)
Austin Kallemeyn, Sioux Center Community HS (in-person)
Zach Mass, Treynor Community HS (in-person)
Bryce Snell, Ballard HS (in-person)
Brookelyn Wahlert, CAM HS (in-person)
Hunter Werner, Louisa-Muscatine Jr./Sr. Schools (in-person)
Aaron Mark, Burlington HS (in-person)
Brent Brain, Muscatine (via video)
Stephanie Lapointe, Newman Catholic HS (via video)

SYBAC Students Absent:

Gabe Golberg, Mount Vernon HS

Zach Mass and Kaylee Daniels chaired the student-led discussion.

Lt. Governor Kim Reynolds participated in the round table discussion with the SYBAC students on a range of topics including the new Amazon ECHO product, driverless cars, lack of strong reliable broadband in some schools, and future opportunities for students in Iowa.

Interactive student conservations:

Amazon ECHO - Echo is a round black cylinder with an audio system. It is always connected (listening for the trigger word) to the cloud via Wi-Fi. The Echo interacts by voice, and answers to the name Alexa.

- ECHO can turn on lights, tell about the weather, and make a house a smart house.
- More than a gadget, it is home automation.

The Super Bowl was streamed Live on the Internet. CBS incorporated 70 cameras.

- What does free content do for the industry?
 - Shifts people away from regular TV to live TV over IP. Requires more bandwidth than what people have right now.
 - As TV shows are moving to 4K resolution it will require more bandwidth. 4K = 4 times the screen resolution than 1080p.

Internet.org - a Facebook-led initiative with the goal of bringing internet access to India.

Verizon has developed a super Internet speed. The new service would provide customers download speeds of 10 gigabits per second via fiber. That would be 10 times faster than Google Fiber and 1,000 times faster than the average U.S. home Internet connection.

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- Verizon has only successfully tested the 10 gigabit speed in a lab, and from one of its offices in Massachusetts to a home and a business three miles away.
<http://money.cnn.com/2015/08/11/technology/verizon-10-gigabit-internet/>

Broadband Conversation:

- Use broadband in school, since it's our main way to connect. We write papers using Google Docs and work on presentations with each other.
 - When one computer goes down, it usually means we are in a dead zone.
 - 1/3 of the school is in a dead zone. 3/4 of laptops won't work.
 - Technology lab is one adult and three students. Not enough staff to fix all tech issues.
- Teachers prepare different plans for technology issues. If the Internet doesn't work they are prepared for a paper assignment.
- Some schools are incorporating access points throughout the building.
- As schools move towards Internet base textbooks, teachers prepare a secondary plan in case the Internet goes down.
 - Four districts are using Internet based textbooks.
 - Some students have Apple technology others use Chromebooks.
- Wired networks are much more stable than wireless networks.

Self-Driving Cars - Self-driving cars, emergency vehicles, and mass transportation discussion.

- Security is going to be a must for the cars.
 - There are layers of technology that we trust.
- Driving should include a human factor.
- Cars already parallel park for a person, break before a collision, and shows color sensors.
- If computers are taking over, what happens with the bad guy scenarios? People then only need to hack cars and not physically steal cars.
- Is the risk worth it, go for the new technology and wait for the risk to come?
 - If people want it bad enough, they will go for it.
 - The manufacture/developer has some responsibility; they need to understand encryption and security.

Security – How important is security and encryption?

- You need to think big, it can affect everyone. Security should always be top priority.
- It depends on the user. They need to take care of their own situations.
- Financial banking is a big area that needs top security.

Encryption – Everyone has a right to privacy to a point, but we should increase encryption. There should be different layers of standards. Consumers could have a high level of encryption, but government should have a higher level of encryption. The conversation could be 'Privacy vs. Security'.

Lt. Governor Kim Reynolds Comments:

- Lt. Governor contacted Iowa Department of Transportation Director Paul Trombino. Update for self-driving cars is that Iowa is developing/testing, and it is accelerating with huge possibilities for economic development and agriculture. Mapping the system is a key piece.
- Human element with driverless vehicles could be associated with semi driving. Opportunity to keep products moving and alleviate costs in downtime.
 - Automatized augmentation in transportation.
- Maybe a future SYBAC group can make recommendations on how government can bring technology into an agency (i.e. DNR, DOT, Governor's Office, etc).

Next SYBAC meeting will be on March 8 via video.